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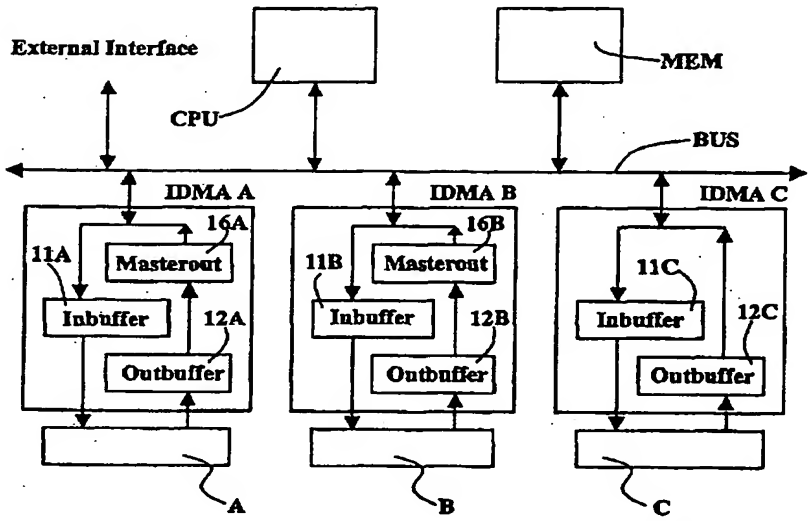
(54) Title: A METHOD FOR DIRECT MEMORY ACCESS, RELATED ARCHITECTURE AND COMPUTER PROGRAM PRODUCT



(57) Abstract: A method of exchanging data within a direct memory access (DMA) arrangement including a plurality of IP blocks (A, B, C) includes the step of associating with the IP blocks (A, B, C) respective DMA modules (IDMA A, IDMA B, IDMA C), each DMA module including an input buffer (11A, 11B, 11C) and an output buffer (12A, 12B, 12C). The DMA modules (IDMA A, IDMA B, IDMA C) are coupled over a data transfer facility (BUS) in a chain arrangement wherein each DMA module has at least one of its output buffer (12A, 12B) coupled to the input buffer (11B, 11C) of another DMA module downstream in the chain and its input buffer (11B, 11C) coupled to the output buffer (12A, 12B) of another DMA module upstream in the chain. The DMA modules interact with the respective IP blocks (A, B, C) by writing data from the input buffer (11A, 11B, 11C) of the IDMA module into the respective IP block (A, B, C) and reading data from the respective IP block (A, B, C) into the output buffer (12A, 12B, 12C) of the DMA module. The input (11A, 11B, 11C) and output (12A, 12B, 12C) buffers in the various DMA module are operated in such a way that; - writing of data from the input buffer (11A, 11B, 11C) of the DMA module into the respective IP block (A, B, C) is started when the input buffer (11A, 11B, 11C) is at least partly filled with data; - when said reading of data from the respective IP block (A, B, C) into the output buffer of the DMA module is completed, the data in the output buffer are transferred to the input buffer (11B, 11C) of the DMA module downstream in the chain or, in the case of last DMA module in the chain are provided as output data.

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